

REMARKS

In the Office Action of June 27, 2007, the Examiner rejected claims 1-10 and 12-26 under 35 U.S.C. 102(b) as anticipated by Lehman (U.S. Pat. No. 5,680,161) and rejected claim 11 under 35 U.S.C. 103(a) as obvious over Lehman in view of Huber (U.S. Pat. No. 6,070,173). Applicants hereby amend claims 1, 7, 12, 15-17, and 22. Based on the amendments and arguments contained herein, Applicants believe this case is in condition for allowance.

Claim 1 has been amended to require that the reformat logic “includes alignment logic that implements a read-modify-write operation to write a value from the application data structure across byte boundaries in the display buffer.” Lehman has no teaching of a read-modify-write operation. In Fig. 2, Lehman teaches loading 32-bit video memory with 24-bits of pixel color values. Because each 24-bit color value naturally does not require 32 bits, each 32-bit row stores portions of color values of at least two different pixels. For example, the first row (MA 0) is shown stored with the red, green and blue values for pixel 0 (R0, G0, B0) along with the red value for the next pixel (R1). The remainder of pixel 1’s color values (G1 and B1) are stored beginning in the next row (MA 1). Lehman teaches sequentially loading the video memory in this manner. See col. 5, lines 29-58. Once the video memory is loaded, the data can be read from the memory in an appropriate way to recreate the RGB values for each pixel. Lehman loads the color values sequentially and does not teach writing only to a portion of an already-written memory address. That is, Lehman does not teach updating just one 8-bit color value at a given 32-bit memory address. Because Lehman has no such need of partial memory address updating, Lehman has no need for, and does not teach, performing a read-modify-write operation. For at least this reason, claim 1 is allowable over Lehman. No other art of record satisfies this deficiency of Lehman.

Similar amendments have been made to independent claims 15 and 22. Thus, those claims and their dependent claims are allowable for much the same reason as articulated above with regard to claim 1.

Dependent claim 9 is allowable for an additional reason. Claim 9 requires a plurality of programmable registers that stores values indicative of "starting and ending addresses of the application data structure in which accesses are to be reformatted by the reformat logic, the starting address of the device buffer, n, and m." The value "n" specifies the bit width of the application data structure and "m" specifies the bit width of the display buffer. The Examiner referred to col. 3, line 55 through col. 4, line 3 for these limitations. That passage in Lehman refers to a "video shift register circuit" and an "output register." The video shift register circuit comprises a pixel buffer into which the pixel color values are stored. The output register also stores pixel color values. Neither of these registers are described as storing what is required by claim 9, that is, "starting and ending addresses of the application data structure in which accesses are to be reformatted by the reformat logic, the starting address of the device buffer, n, and m." Applicants find no teaching elsewhere in Lehman of registers that store the claimed values.

Claims 10, 18, and 19 contain the same or similar limitations as claim 9, and thus are allowable for much the same reason as well, in addition to their base independent claims being allowable.

Claim 12 has been amended to clarify that the multiplexer selectively permits accesses from the application to "bypass the reformat logic so that such accesses are not reformatted by the reformat logic." Support for this amendment can be found at least in Fig. 4 (PA bypasses compressor 154 via multiplexer 155) and in the text describing Fig. 4. Lehman has no such bypass mechanism. The Examiner referred to col. 12, lines 57-60 of Lehman with regard to claim 12. That passage describes pixel selector 84 which simply selects one of the groups of pixel color values. While pixel selector 84 may be a multiplexer, it is not described as being used to "bypass the reformat logic so that such accesses are not reformatted by the reformat logic." For this additional reason, claim 12 as well as claims 13 and 14 which depend on claim 12 are allowable over the art of record.

CONCLUSION

Applicants respectfully request reconsideration and that a timely Notice of Allowance be issued in this case. Applicants believe a 2-month extension of time is necessary for this response and thus so petition. However, in the event that additional extensions of time are necessary to allow for consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required (including fees for net addition of claims and for time extensions) are hereby authorized to be charged to Texas Instruments Inc.'s Deposit Account No. 20-0668 for such fees.

Respectfully submitted,

/Jonathan M. Harris/

Jonathan M. Harris
PTO Reg. No. 44,144
CONLEY ROSE, P.C.
(713) 238-8000 (Phone)
(713) 238-8008 (Fax)
ATTORNEY FOR APPLICANTS